

Claims

1. A process for the manufacture of dispensing apparatus, the process comprising  
5 moulding a first component including a tubular outlet, the first component being moulded in a first, relatively less rigid material, and moulding a second component about the first component, the second component being moulded in a second, relatively more rigid material, wherein the first component is moulded with the tubular outlet in an  
10 open configuration and moulding of the second component compresses the tubular outlet to a closed configuration, the tubular outlet being elastically deformable, by the application of pressure to the tubular outlet, from the closed configuration to the open configuration.
- 15 2. A process as claimed in Claim 1, wherein the first, relatively less rigid, material that is suitable for the moulding of the first component is a thermoplastic elastomer.
- 20 3. A process as claimed in Claim 1 or Claim 2, wherein the second, relatively more rigid, material that is suitable for the moulding of the second component is polypropylene.
- 25 4. A process as claimed in any preceding claim, wherein the dispensing apparatus is arranged such that liquid product flowing into the tubular outlet above a certain pressure, in use, is sufficient to elastically deform the tubular outlet to its expanded dispensing configuration.
- 30 5. Dispensing apparatus for a fluid product, said apparatus comprising a container having a tubular outlet, wherein the tubular outlet has a collapsed non-dispensing configuration and wherein the tubular outlet is elastically deformable, by the application of pressure to the tubular outlet, to an expanded dispensing configuration in which the fluid product is able to flow through the tubular outlet.

6. Dispensing apparatus as claimed in Claim 5, wherein the tubular outlet is moulded in an open configuration and is at least partially encased in a more rigid material, the casing being arranged so as to hold the tubular outlet in its non-dispensing configuration.
7. Dispensing apparatus as claimed in Claim 5 or Claim 6, wherein the dispensing apparatus is arranged such that liquid product exits the container under pressure, in use, and this pressure is sufficient to elastically deform the tubular outlet to its expanded dispensing configuration.
8. Dispensing apparatus as claimed in any one of Claims 5 to 7, wherein the entire fluid conduit is collapsed, and hence all fluid product within the fluid conduit is expelled, when the tubular outlet reverts back from its dispensing configuration to its non-dispensing configuration.
9. Dispensing apparatus as claimed in any one of Claims 5 to 7, wherein the fluid conduit includes an enlarged portion which forms a sealed cavity within the tubular outlet in its non-dispensing configuration.
10. Dispensing apparatus as claimed in any one of Claims 5 to 9, wherein the container is formed in a flexible material so that manual squeezing of the container by a user urges material from the container through the tubular outlet.
11. Dispensing apparatus as claimed in any one of Claims 5 to 9, wherein the dispensing apparatus includes means for pumping material from the container through the tubular outlet.
12. Dispensing apparatus as claimed in any one of Claims 5 to 9, wherein the dispensing apparatus comprises a pressurised container fitted with a dispensing valve having a valve outlet, and an actuator in which the tubular

outlet is formed, the actuator being engaged with the dispensing valve such that depression of the actuator opens the dispensing valve.

13. Dispensing apparatus as claimed in Claim 12, wherein the actuator  
5 takes the form of a cap that is fitted to the container.

14. An actuator cap adapted to engage a pressurised container fitted with a dispensing valve having a valve outlet, the actuator cap comprising an actuator including a tubular outlet including a fluid conduit, wherein the tubular outlet  
10 has a collapsed non-dispensing configuration in which the fluid conduit is closed and wherein the tubular outlet is elastically deformable, by the application of pressure to the tubular outlet, to an expanded dispensing configuration in which the fluid conduit is opened.

15. An actuator cap as claimed in Claim 14, wherein the tubular outlet is moulded in an open configuration and is at least partially encased in a more rigid material, the casing being arranged so as to hold the tubular outlet in its non-dispensing configuration.

20 16. An actuator cap as claimed in Claim 14 or Claim 15, wherein the dispensing apparatus is arranged such that liquid product exits the container under pressure, in use, and this pressure is sufficient to elastically deform the tubular outlet to its expanded dispensing configuration.

25 17. An actuator cap as claimed in any one of Claims 14 to 16, wherein the tubular outlet is formed in an elastomeric material.

18. An actuator cap as claimed in any one of Claims 14 to 17, wherein the fluid conduit has a flattened cross-section and is elastically deformable along  
30 the minor axis of the flattened cross-section.

19. An actuator cap as claimed in any one of Claims 14 to 18, wherein the external surface of the tubular outlet includes a formation that is adapted to mate with a corresponding formation formed on the remainder of the cap.
- 5 20. An actuator cap as claimed in any one of Claims 14 to 17, wherein the actuator comprises a portion of the cap that is movable relative to the remainder of the cap.